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In the matter of )

Telephone Number Portability )

CC Docket No. 95-116  
RM 8535

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COMMENTS OF AMERICAS CARRIER TELECOMMUNICATIONS ASSOCIATION

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## **SUMMARY**

Americas Carriers Telecommunications Association, (ACTA)<sup>1</sup> strongly supports the Commission's decision to assume a leadership position in promoting local number portability. The Commission should act now to select and ensure the implementation of a permanent number portability solution. Surveys conducted by both MCI and MFS show conclusively that customers will not consider service offerings from new local service providers if they have to change their telephone numbers. Business and residential customers' inability to keep their telephone numbers when changing vendors clearly acts as a major barrier to entry for potential competitors in the local exchange business. Creating service provider portability is the single most important ingredient in establishing a competitive local exchange marketplace. The Commission should mandate the implementation of such a system by a date certain.

The Commission should not select the proposed interim number portability solutions that use Remote Call Forwarding and flexible Direct Inward Dialing. There are currently several number portability trials being conducted in several states. The Commission should continue to monitor the technology trials but the current interim portability connections will not promote local exchange competition. These solutions force the new entrants to rely on the networks of their competitors to complete calls. In addition, this solution is circuit inefficient, creates a competitively inferior product to bring to the market and is cost prohibitive. This arrangement sets up the incumbent local telephone company as the arbiter of competition in their operating area.

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<sup>1</sup> Americas Carriers Telecommunications Association (ACTA) is a trade association comprising a membership of approximately 90 switched based and switchless resellers.

It is important to utilize a technology that will allow for routing independence by all carriers as quickly as possible. The Commission should select the MCImetro Carrier Portability Code ("CPC") proposal as the "interim" database solution. The main feature of CPC is that it does not require that calls be routed through the incumbent's network and allows alternative carriers to control many of their portability costs and engineering decisions. In addition, CPC allows for hierarchical features for the subscriber and can be implemented within a few short months. Equally important, it is compatible with AT&T's proposed Local Routing Number ("LRN") database proposal.

The Commission should select an industry Service Management System ("SMS") that will support both an interim and long term number portability solution. ACTA believes that the interim solution should be the use of MCImetro's proposed CPC database which is migratable into AT&T's proposed Local Routing Number scheme. The interim solution should be implemented by the end of the second quarter, 1996 in the top 100 markets of the country. The Commission should also select AT&T's LRN as the long term database solution. Number portability must be neutral, both in network design, operation and management. Both of these proposals meet that goal.

The Commission should establish a neutral management company to control the numbering portability function. This company should be chosen through a competitive bidding process eliminating present network vendors from participating. Once chosen, this company should interact with industry groups to develop a full implementation plan for a number portability solution.

Each carrier should bear its own costs for converting to the selected number portability scheme. In addition, the SMS management company should recover costs with transaction

transaction fees for use of the established database. These charges should be neutral in their application to all the competitors.

The Commission does not need to address service and location portability immediately. ACTA does not believe that there is a market demand or competitive need for either of these services in the near term. In addition, there is no need presently to include wireless number portability, 500 or 900 services.

ACTA believes that there are sufficient solutions for the Commission to act expeditiously in mandating to the industry both interim and long term solutions that will support the competitive local exchange market.

#### **I. THE IMPORTANCE OF NUMBER PORTABILITY**

ACTA agrees with the Commission's tentative conclusion that "the portability of geographic telephone numbers benefits consumers by providing them greater personal mobility and flexibility in the use of telecommunications services by contributing to the development of competition among the alternative providers of local telephone and other telecommunications services." The establishment of a competitive local exchange market clearly rests on service provider portability.

MCImetro, in its Gallup survey<sup>2</sup> of business and residential consumers found that 83% of business customers believed that keeping their telephone numbers when switching vendors was very important. Among residential customers, 80% stated that they would probably not switch service providers if they had to change their telephone numbers.

MFS, in its 1994 survey<sup>3</sup> showed that 92% of customers would not consider its service if they had to change telephone numbers. In addition, 98% of those surveyed said

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<sup>2</sup> "Local Number Portability National Study", The Gallup Organization, October, 1994  
commissioned by MCI

<sup>3</sup> "MFS Intelenet Research", conducted by AHF Marketing Research, November, 1994,  
commission by MFS.

number portability was "very important" to them. ACTA has not seen any market survey, study or other evidence that suggests that number portability is not critically important to customers. Even a recent Pacific Telesis survey<sup>4</sup> filed as an *ex parte* submission in this docket confirms that number portability is important to all customers and that forcing customers to change their telephone numbers would have a major impact on their willingness to use competitive suppliers.

NYNEX and Ameritech admit that there is significant "churn" in their customer base where there is a significant number of new telephone numbers each year. This churn can only be caused by the fact that number portability is NOT available. Pacific Bell however, claims that its survey shows that number portability is relatively unimportant<sup>5</sup>. They say that it would only produce about "...10% more of the business market." In the long distance business, there are only three carriers that have that much marketshare. Pacific Bell here adds that carriers would be able to acquire business for as little as a 12% pricing discount. What Pacific Bell comments convey is an attempt to denigrate the importance of number portability while at the same time suggesting that new entrants will have to discount their services in order to enter the market.

The reality is that users are very protective of their telephone numbers. They believe they own them and they have always been very reluctant to change them. This is particularly true for businesses. Businesses try to acquire telephone numbers that are easy for their customers to remember. They invest heavily in advertising their numbers and resist changes. This should be a given. Competition will not grow in local exchange if the

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<sup>4</sup> "Analysis of Potential Local Access Competition in the Pacific Bell Residence and Business Markets", August 3, 1995 commissioned by Pacific Bell

<sup>5</sup> The Commission must recognize that in the long distance business, there are only three carriers, AT&T, MCI, and Sprint have a 10% or more marketshare.

Commission is misled into tolerating the creation of an environment where the LECs, the new entrants main competitors are allowed to create market inertia by denigrating the need for rapid implementation of number portability.

The Commission should refer to the industry's experience with 800 number portability. The Commission granted 800 market services in May, 1993. Growth of the 800 market has grown approximately 10% a year since that time. This growth reflects demand from new customers and service applications. Competitive activity has increased substantially since 800 numbers became portable with IXCs such as ACTA members offering new 800 service products, features and functions with numerous promotions to stimulate demand. There is every reason to expect that implementation of service provider portability for local telephone numbers would similarly spur significant competitive activity.

The situation is not the same for service and location portability. While ACTA supports the Commission's leadership efforts to bring about total telephone number portability, these types of portability are not critical to tests of local competition and present implementation problems not associated with service provider number portability. Service portability is the ability to change one service for another without changing the telephone number. An example of this is a homeowner having the main billing number upgraded to an ISDN circuit.

Of all the portability issues, ACTA has seen no indication of any market demand either from potential competitors or customers. Location portability is another matter.

There is customer interest in retaining their telephone number when they move. This reinforces our contention that customers are possessive of their telephone numbers. However, location portability presents several potential problems. Customers have come to rely on NPAs and NXXs to know whether the calls on a telephone bill are local or long distance. Location portability will take away the geographic location of a particular telephone

number and possibly add to customer confusion about location and rates. It could very well be the case that calls that were once toll-free could become toll calls and calls that required only seven digit dialing could now require ten digit dialing. Further, unlike service provider portability, location portability presents policy and technical issues that have not been addressed and their solution can only slow down the implementation of service provider portability. Therefore, the Commission should not address either service or location portability until after the implementation of service provider portability.

## **II THE COMMISSION'S ROLE**

ACTA applauds the Commission's decision to adopt a leadership role in the implementation of number portability and agrees with its tentative conclusions in paragraphs 29-31 of the NPRM regarding the federal interest in number portability. ACTA believes that it is imperative that network and database architectures be designed so that they are technically compatible in order to minimize the costs to all carriers and so that these are not used as competitive barriers to entry into the local exchange business.

In the NPRM, the Commission sought comment on whether there should be a regulatory mandate requiring the availability of number portability measures for geographic telephone numbers as well as what measures it should take to implement such a system. ACTA believes that the Commission must be aggressively involved in directing the implementation of number portability. The numbering resources are the foundation of the national telephone network. As such, their fair and equitable availability to all competitors is essential for a transition from a monopolistic to competitive industry. They must be



administered by a neutral party in a non-discriminatory fashion that will not impede the growth of competition.<sup>6</sup>

ACTA believes that the Commission needs to be involved the specific issues relating to the deployment of a system for service provider number portability. The Commission's role in mandating 800 number portability should serve as an example. The Commission mandated specific goals, standards and dates that the industry had to meet for implementation. It resolved the issues of cost recovery and pricing issues as it pertained to 800 database access. The same should be done in this instance. If the Commission does not proceed in the same manner as it did in the 800 number portability proceeding, ACTA fears that the incumbent local exchange carriers will have no incentive to assist in the creation of local number portability. In fact, the local carriers have a tremendous incentive not to cooperate in establishing local number portability. Unless the Commission acts decisively and prescribes uniform nationwide network interfaces, specific performance criteria and a date certain by which the LECs must implement a system of geographic number portability which satisfies these standards, they will dissemble, obfuscate the issues and delay.

The Commission should direct the LECs to deploy a nationwide, uniform system for geographic number portability. ACTA believes that an interim portability system can be deployed within the next twelve months and a long term solution deployed in the top 100 markets of the country two years after that. This phased approach balances the need for a rapid deployment of a portability system today with the longer term capital and technology limitations. ACTA acknowledges that there are substantial costs to the carriers. It also

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<sup>6</sup> The advent of competition in the local exchange forces the divestiture of the administration of the North American Numbering Plan and the System Management Services ("SMS") to a neutral third party.

believes that the largest demand for service provider portability will be in those top 100 markets. Therefore, ACTA believes the timeframes agreed upon should reflect a regional rollout of network capabilities and that each of the carriers recover their costs from their end users. To minimize the burden, the costs should be amortized over a several year period.

The Commission should adopt the following guidelines:

- number portability solutions should be implemented in a competitively neutral manner;
- the database information must be accessible to all;
- portability must be transparent to the users;
- the service provider should control the routing of calls for its customers;
- existing network infrastructure should be used as much as possible;
- all local exchange providers should benefit in the same manner;
- the solution should have minimal impact on the numbering resource.

The Commission should adopt the standards recommended by the industry and make those standards mandatory for all service providers.

### **III INTERIM NUMBER PORTABILITY**

Each state that is considering competition in the local exchange is reviewing some form of interim number portability. Several states have tried to provide interim number portability to encourage local competition until a true portability solution can be implemented. The New York Public Service Commission<sup>7</sup> recently ordered NYNEX and Frontier Corporation to provide interim numbering portability. The Illinois Commerce Commission ("ICC") has required that Enhanced and Remote Call Forwarding as well as DID trunks be tariffed<sup>8</sup>. Other states such as Texas, Maryland, Iowa and Connecticut are reviewing number portability. In all of the states that presently have number portability under discussion, the

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<sup>7</sup> Case 94-C-0095, Order Requiring Interim Number Portability

<sup>8</sup> Docket 94-0096

local exchange carriers and predominantly the RBOCs have suggested that the fastest and easiest way to introduce competition into the marketplace is via Remote Call Forwarding, ("RCF") and flexible DID trunking.

RCF basically call forwards the telephone number of the incumbent to the new telephone number of the new entrant. This means that a call to a customer who has changed service providers will be routed to the end office of the local exchange carrier that previously served him; the dialed number will be translated to a second number assigned to the new service provider, and the call will be forwarded to the end office switch of the new carrier serving that number.

Remote Call Forwarding has serious deficiencies. First of all, it forces all the calls of a new carrier to be routed through the network of the old carrier. This means that the old carrier, in reality, controls the calls and the customers of the new carrier. The new entrant does not control his own destiny. The alternative carrier isn't able to efficiently route and terminate calls and increases the cost of call termination.<sup>9</sup> The forwarding of a call from one number to another is time consuming. Utilizing this method will increase post-dialing delay, decrease network reliability, and reduce transmission quality. In addition, even though Bell Atlantic states that it's network can now provide customers with Caller ID, RCF still drops significant features.

What the RBOCs have done is take a limited network capability and attempt to apply it as a solution for number portability. It is cumbersome, costly and does exactly what they want it to, force their competitors to sell inferior service at a discounted price. Both RCF and Flex DID force alternative carriers to route the incumbent network creating another bottleneck. The Commission should not mandate this solution for interim number portability.

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<sup>9</sup> NYNEX's current charge for a ported business line is \$4.00 per month and for a ported residential line is \$2.00 per month.

ACTA supports MCImetro's Carrier Portability Code ("CPC") as the best interim number portability solution. This is the critical first step toward the implementation of AT&T longer-term Location Routing Number ("LRN") approach. MCImetro's approach is to provide a three digit identification number for each of the service providers within a particular Numbering Plan Area ("NPA"). These identifying numbers called CPCs are stored in the database along with the ported customer's directory number. The CPC transparently replaces the three-digit NPA for the purpose of routing the call to the appropriate local service provider's end office. The CPC approach maximizes the existing efficiencies of today's networks. Its implementation will not add to the complexity of the networks. It uses the same signaling and protocol standards and will have minimal impact on future network services.

This approach does not require any development in switching systems, can be immediately deployed with minimum service/feature interaction issues and there is little impact on billing systems. In addition, it is the migratable front end to the proposed long term solution of LRN put forward by AT&T. There has been a demonstration of the prototype service and the New York Public Service Commission has selected this approach for a real world test scheduled to begin in 1996.

This approach does not affect the handling of operator functions. It does not affect the format of the called-party number. It does not affect LIDB. It does not affect billing if the CPC codes are entered into the database. In essence, it provides a means for a regional rollout of number portability at limited costs to both the incumbents and the new entrants while supporting a longer term number portability solution. ACTA suggests that the Commission mandate this methodology for interim number portability and not the methods advanced by the RBOCs.

#### **IV LONGER TERM NUMBER PORTABILITY SOLUTIONS**

ACTA recommends that the Commission select the database solution proposed by AT&T. It has submitted a database method for service provider number portability that could be deployed on a regional and not national basis. It is a single-number solution that assigns a network routing address on a per switch basis rather than on a per line basis. It is called Location Routing Number ("LRN"). This is the means of routing the call through the network to the terminating switch using a ten digit number in the NPA/NXX format that is currently used in call routing. The first six numbers would identify the local exchange end office serving the call party. The last four digits would not be the same as in the dialed number and would not be the same number across all the switches used in routing the call.

By using this format, there is no impact on the carriers' existing infrastructures. Switch modifications and upgrades would be minimal. There would be no changes necessary in the existing AIN 0.1 TCAP messages to accommodate LRN. This approach would also minimize the impact on the NANP number resources since only one number per NXX is the LRN to the switch. In a true number portability environment, the dialed number will launch a common channel ("SS-7") signaling query to a number portability database chosen by that carrier. The database will respond to the querying carrier's network with the LRN that identifies the appropriate end office of the local exchange carrier that will terminate the call. The querying carrier will then route the call to the end office based upon the LRN.<sup>10</sup> When the terminating end office receives the call, it will use the LRN to confirm that the call was correctly routed and use the original dialed number to route the call to the called party.

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<sup>10</sup> This routing query will be performed by the next to the last carrier ("N-1") whether it is a local or long distance call. This means that the originating carrier will do this query for local calls and the IXC carrier for long distance calls.

This approach does not require calls to be routed to the incumbent's network. Carriers can now be certain that the routing of their call is handled in a neutral manner. It conserves numbering resources. LRN will optimize the future availability of numbering resources. It supports vertical features as well as additional functions such as operator services, E911, busyline verification and LIDB access for call requiring alternative billing. It uses the existing ten digit NANP format as well as six digit routing which can be implemented without changes to the existing algorithms in network switches. Any network switch, including a tandem is capable of routing the call to the terminating switch. This allows for portability to be rolled out on a regional basis.

LRN uses the "N-1" call processing model. This means that it permits call processing to be performed by the next-to-last carrier. In the case of an Interlata call, the originating LEC will pass the call to the appropriate IXC carrier which will perform the signaling query to the database. By allowing an intermediate carrier to determine the routing of a call eliminates the need for the portability solution to be "flash cut" on a nationwide basis, but can be rolled out region by region.

There will be costs associated with the deployment of this Service Management System. In their initial responses, the RBOCs have stated that they must have cost recovery from those who benefit or will use number portability. In fact, they have all recommended that only their interim portability solution be implemented until the Commission can determine how they will recover all their costs. ACTA believes that each carrier's network's costs be borne by the individual carrier and the costs incurred by the SMS administrator for the installation and operation of the database be borne by all the customers within the geographic area served by that database. These costs could be recovered by minimal

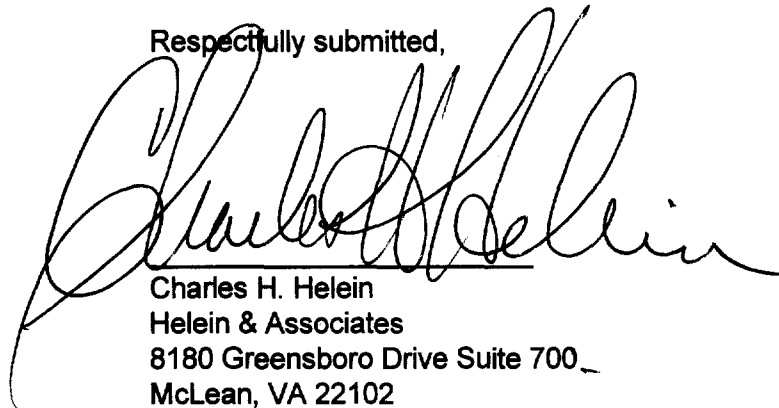
minimal transaction charges for use of the databases or by putting a surcharge on each active telephone number.

These costs should be viewed as costs of doing business to be recovered by each carrier from its own customer base. The Commission should not approve policy that would create another competitive barrier by having the new entrants pay the full costs of number portability as the Bell System is suggesting.

## **V CONCLUSION**

ACTA believes that the Commission must take the leadership role in addressing the key issues on local number portability. A national policy is critical for the growth of competition in the local exchange business. While the industry should put forward recommendations for network architectures, the Commission will be required to make the selection and issue the mandates as to policy, schedules and compatibility issues. The Commission should mandate interim number portability using MCImetro's Carrier Portability Codes and AT&T's longer term solution, Location Routing Number. Implementation of the interim solution should be by the end of the second quarter, 1996 for the top 100 marketplaces. The long term solution should be scheduled for completion by the end of 1998.

Respectfully submitted,

A large, stylized handwritten signature in black ink, appearing to read 'Charles H. Helein', is written over a horizontal line.

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